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ABSTRACT

A number of factors in society affecting the curriculum and thereby creating futuristic facility trends are identified in this paper. People are living longer, technologies are available, and new leadership roles are emerging. These factors present resulting educational implications for curriculum and the school facility. Instead of being isolated from the social world, the modern emphasis is on schools that are open systems and that depend on the external environment for survival. Three exemplary facilities are described: (1) Scottish Corners Elementary School (Columbus, Ohio); (2) Alfred Elementary School (Waterboro, Maine); and (3) the "smart classroom" schools of Scott County (Kentucky). School design trends are allowing schools to become truly special environments through planning processes which foster involvement with staff, involvement with community, and involvement with students who benefit from the facility. (12 references) (SI)

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Forecasting The Future of School Facilities

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Forecasting The Future of School Facilities

Abstract

Planning school buildings for the 21st century must be placed high on the school board members' list of priorities. The culture affects teaching and learning, which in turn creates a necessity for school facility design considerations.

A number of factors are causing changes in society. People are living longer, technologies are available and new leadership roles are emanating. These present resulting educational implications for curriculum and the school facility.

There are exemplary facilities that have been planned and built to provide quality education for the young, allow community groups to have opportunities for utilization and be easily recycled if future enrollments decline. Other buildings preserve the integrity of the community while offering the latest in automation and technology. Also, community participants are being involved in the planning of facilities.

The intent of this paper is to present factors in society effecting the curriculum and thereby creating futuristic facility trends.

Forecasting The Future of School Facilities

Introduction

Planning contemporary school buildings for the year 2000 and beyond must be given high priority on the school agenda. Research has shown that the instructional environments insure, to a great degree, the success or failure of student learning and faculty teaching.

School curriculum is affected by general and specific factors in present-day society. In turn, the design of the facility necessitates an understanding of curricular offerings resulting from pressures emanating from the culture.

Factors Causing Change In Society

A snapshot of the 1990s reveals that the population will grow 1 percent per year, baby boomers will be age 40 or over, people over 85 will outnumber teens and life expectancy in the year 2000 will be 77 (Clodi and Jacobson, 1988). Naisbitt (1989) concluded that people are moving from urban areas to rural areas for the first time in 200 years. The main reason is to improve their quality of life.

The National Governor's Association members decided that available technologies are changing rapidly. New versions of computers, video tape players, satellite transmission equipment, digital television and materials to use with technologies are produced every month.

(American Association of School Administrators, 1988).

Clodi and Jacobson (1988) determined now is the time to renew the quality of American competitiveness to insure our leadership role in the international marketplace.

By the year 2000, one out of three Americans will be a member of a minority group. Presently, one out of four American children is born into poverty. It was possibly at one time in this society for people to succeed if they worked hard. However, it is increasingly difficult for the poorly educated to find jobs. A growing number of unemployed people seriously strains our social fabric. (American Association of School Administrators, 1988).

Naisbett (1989) offered the opinion that the workplace is shifting from the manager as one who gives orders to the manager as facilitator. We are moving from a manager who has all the answers to someone who provides an environment for personal growth. The executive will become a teacher, a resource and a developer of human potential.

John Gardner, former Secretary of Health, Education and Welfare and director of the Leadership Studies Program sponsored by the independent sector, identified six characteristics of leaders who would be successful and effective in future society.

1. Think beyond the day's crises, even beyond the horizon.

2. Look beyond the unit and grasp its relationship to the larger organization.

3. Place heavy emphasis on the intangibles of vision, values and motivation.

4. Develop the ability to set priorities.

5. Have the communications and political skills to cope with multiple constituencies.

6. Think in terms of renewal for the organization and its people. (American Association of School Administrators, 1988).

Factors that present a number of sociological and cultural issues resulting in educational implications for curriculum and the school facility follow:

1. Vocational needs will change

2. Rural and adult education are to be re-evaluated

3. The home economics curriculum will focus on child care, total health and nutrition

4. Programs will be needed to help students adjust to one-parent and latchkey homes

5. Senior citizen roles as consumers and resource persons will be redefined

6. The need for programs for at-risk students and early childhood education programs will increase

7. Programs to increase funds for the arts and cultural education will have to be found

8. Competition among public, private and parochial schools will evolve (Clodi and Jacobson, 1988).

The Evolving Curriculum and Facility

Wiley (1982) strongly believed that an environment conducive to learning must serve two major purposes. A favorable physical environment must be tension-releasing, encouraging learners to forget job problems and become effective listeners and individual thinkers.

Furthermore, this environment must make it easy for the group to be together, without interference, so that members can focus their attention on the learning tasks with a minimum of distraction and inconvenience. A favorable environment for student learning and the teacher's instruction comes about as a result of careful, systematic long-term, far-sighted planning.

At the beginning of the twentieth century, school buildings were not architecturally exciting. Many looked like large boxes with red brick walls and steep roofs. Neither the architect nor the educator had a clear understanding of the tasks to be completed in these facilities (Castaldi, 1987).

Marangou (1986) believed that rigidity in the organization of teaching spaces was the general design principle. There was a minimum number of spaces for special use, with limited laboratory and technical equipment. Students' desks were arranged in rows facing the teacher. Finally, there was minimum space provision for social activities and classrooms were separated from the rest of the school.

Instead of being isolated from the social world, the modern emphasis is on schools that are open systems and which depend on the external environment for survival. Contemporary schools must be receptive to the community and recognize the need to be supported and held accountable by the general public. The teacher's

role is mainly advisory in nature, and students are not only to be provided opportunities to grow mentally and academically, but also to grow physically, emotionally and socially. (Marangou, 1986).

Exemplary Facilities

The newly completed Scottish Corners Elementary School in the suburbs of Columbus, Ohio, provides a good example of the versatile school which is geared for future use and community convenience as well as effectively achieving its purpose of providing quality education for the young. This Elementary School ties the school grounds into an adjacent city park, makes a set of restrooms available to park-goers 24 hours a day and allows for one wing of the building to be closed off so that community groups can hold meetings. Furthermore, the school is built in such a way that its facilities can be easily recycled for another use should local school enrollments decline in the future. This particular school offers great insights to modern school planners in that they took possible reuse of the school facility into consideration. The school is a joint site development effort by both the city council and school board. Their cooperation increased the benefits for students and community for less money. (The American School Board Journal, 1988).

Another example is the Alfred Elementary School of Waterboro, Maine. The residents had a deep respect for preserving the atmosphere of their community which enjoyed an unusually generous amount of high-quality, 19th-century architecture. They cherished their buildings of the typical "New England" style, and insisted that the new elementary school be built in the same architectural format as the community residential buildings. While respecting the community request, the school board membership believed that the design of the new school had to meet the diverse educational needs of both the children and the teachers. The designers' final solution came after much consideration and thought. The facade and the general character of the new school echoed the New England flavor of the town's traditional architecture, combining various shades of red brick with light, gray clapboard siding and green wooden trim. Covered, hipped-roof porches protected the entrance ways. A bell tower above the entrance offered a focal point which is reminiscent of an old-fashioned one-room school house. (Rist, 1988).

In Scott County, Kentucky, a new epoch has arrived. It is referred to as A.T. - After Toyota. However, it could stand for advancing technology. When the Toyota manufacturing plant announced a $1.2 billion location in Scott County three years ago they were invited to become partners in education. Being aware of

the dedication and commitment the Japanese have to education, the decision was made to bring Toyota in on the planning of "smart classrooms". With the Toyota - induced boom in the community there was a need for new facilities. (Herliky and Day, 1989).

The first step was to establish a strategic planning team to develop a five-year plan to guide the Scott County schools into the 21st century. The team consisted of board members, administrators, teachers, business and industry leaders, state education officials, educational consultants and Toyota officials. The team realized that the typical classroom of today has a questionable future. Focused on the teacher, it has outlived its usefulness. Teacher-centered instruction, in fact, may no longer be the best way to teach. Teachers will have to become facilitators, assisting each student to tap into the wide body of information available on computers and through other forms of technology. (Herliky and Day, 1989).

Facility Trends

Due to the profound social and educational reforms, and due to the newly accumulated knowledge about the relationship between school environments and student learning, planning for the future school facility has definitely changed and is still changing. The wide

application of academic computers for Computer-Assisted Instruction (CAI) has its effect on how students learn and how space should be arranged in schools. Renewed emphasis from both the state and the local educational agencies on special education makes school planners keenly aware of the need for new facilities and efficient use of the existing facilities. (Brubaker, 1988).

Perceptions about school facilities have changed along with requirements. Fewer students in classes, new and expanded programs, increased use of the building by the community - all these factors have forced changes in the design of the typical elementary school. And in many school systems, better educated, more sophisticated parents are asking for higher quality buildings with more pleasing public and community areas. they realize their school is a long-term investment, and they want a building they can take pride in, a building that will provide for the needs of their children now and into the 21st century. (Ryden, 1989).

Conclusions

Today's school design trends are allowing schools to become truly special environments. But this is not easily achieved. In addition to the efforts of the professional planners, Tony Wall, the executive director of the CEFP Journal (1988), called for planning

processes which must foster involvement-involvement with staff, involvement with community and involvement with students who benefit from the facility. This is the time for facilities, planners and designing professionals to make dramatic improvements in their work, and their work in turn will play an important role in bettering education through effective utilization of the buildings by school administrators, faculty and students.

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